

REMARKS

This paper responds to the Office Action mailed on September 9, 2004.

Claims 38, 48, 52-53, 55-56, 60-62, 78-81, and 83 are amended, claims 1-37, 51, and 114-115 are canceled without prejudice or disclaimer, and claims 116-136 are added; as a result, claims 38-50, 52-112 and 116-137 are now pending in this application.

Claim 38 is amended to correct a minor grammatical error, specifically a semicolon is added to the claim. This amendment is not narrowing and not made in response to any substantive rejection.

§103 Rejection of the Claims

Claims 1, 7, 8, 9, 11, 13, 14, 16, 20, 21, 62 and 114-115 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers et al. in view of Foley et al. "Computer Graphics: Principles and Practice" and further in view of U.S. Patent No. 6,414,679 to Miodonski et al. Claims 1, 7, 8, 9, 11, 13, 14, 16, 20, 21, and 114-115 are canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot. Claim 62 is amended to include only allowable subject matter. Reconsideration and allowance of claim 62 are requested.

Claims 3-6, 15, 18, 19 and 22 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers et al. in view of Foley et al. "Computer Graphics: Principles and Practice" and further in view of U.S. Patent No. 6,414,679 to Miodonski et al. as applied to claims 1, 2 and 16 and further in view of U.S. Patent No. 6,646,641 to White et al. These claims are canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claim 10 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers et al. in view of Foley et al. "Computer Graphics: Principles and Practice"

and further in view of U.S. Patent No. 6,414,679 to Miodonski et al. as applied to claim 8 and further in view of U.S. Patent No. 6,014,145 to Bardon et al. Claim 10 is canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claim 12 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers et al. in view of Foley et al. “Computer Graphics: Principles and Practice” and further in view of U.S. Patent No. 6,414,679 to Miodonski et al. as applied to claim 8 and further in view of Luebke et al. “Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets”. Claim 12 is canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claims 24, 25 and 36 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers as applied to claims 23 and 35 in view of U.S. Patent No. 6,646,641 to White et al. Claims 24, 25 and 36 are canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claim 26 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers, in view of U.S. Patent No. 6,646,641 to White et al. as applied to claim 25 and further in view of Luebke et al. “Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets”. Claim 26 is canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claims 27 and 28 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers, in view of U.S. Patent No. 6,646,641 to White et al. as applied to claim 24 and further in view of Luebke et al. “Portals and Mirrors: Simple, Fast Evaluation of Potentially Visible Sets”, yet further in view of U.S. Patent No. 6,014,145 to Bardon et al. Claim 27-28 are canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claims 48 and 50 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers in view of Foley et al. “Computer Graphics: Principles and Practice” and further in view of U.S. Patent No. 6,014,145 to Bardon et al. Applicant respectfully traverses.

Claim 48 recites, in part, join said transformed internal visual geometry of said identified tiles to generate said world visual geometry data defining a substantially contiguous internal 3D surface enclosing said 3D world. Applicant can not find at least this feature in the applied documents, either alone or in combination. Applicant further submits that claim 38, which was indicated as allowed, includes a similar feature. Allowance of claim 48 and claims 49 – 50 depending therefrom is requested.

Claim 49 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,362,817 to Powers in view of Foley et al. “Computer Graphics: Principles and Practice” and further in view of U.S. Patent No. 6,014,145 to Bardon et al. as applied to claim 48, and further in view of U.S. Patent No. 6,646,641 to White et al. Applicant respectfully traverses. Claim 49 is allowable at least because it depends from claim 48. Allowance of claim 49 is requested.

Claims 58 and 61 were rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,414,679 to Miodonski et al. as applied to claim 51 in view of U.S. Patent No. 6,362,817 to Powers. Claim 58 now depends from claim 56 and is believed to be allowable therewith.

Claim 61 recites, in part, display an approximate memory requirement of the virtual 3D environment represented by the structure. Applicant can not find this feature in the applied documents, either alone or in combination. Applicant further submits that claim 53, which was indicated as allowable, includes a similar feature. Allowance of claim 61 is requested.

Claim 59 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,414,679 to Miodonski et al. in view of U.S. Patent No. 6,362,817 to Powers as applied to

claims 58 and 77, and further in view of U.S. Patent No. 5,414,801 to Smith et al. Claim 59 now depends from claim 56 and is believed to be allowable therewith.

Claim 78 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,414,679 to Miodonski et al. as applied to claim 77 in view of U.S. Patent No. 5,414,801 to Smith et al. Claim 78 now depends from claim 81 and is believed to be allowable therewith.

§102 Rejection of the Claims

Claims 23, 29-35 and 37 were rejected under 35 USC § 102(e) as being clearly anticipated by U.S. Patent No. 6,362,817 to Powers et al. Claims 23, 29-35 and 37 are canceled without prejudice or disclaimer. Accordingly, the rejection thereof is now moot.

Claims 51, 52, 55, 60, 77, 79 and 80 were rejected under 35 USC § 102(e) as being clearly anticipated by U.S. Patent No. 6,414,679 to Miodonski. Claims 52, 55, 60, 77, 79 and 80 now respectively depend from allowable claims. Allowance of claims 52, 55, 60, 77, 79 and 80 is requested.

Allowable Subject Matter

Claims 53, 54, 56, 57 and 81-83 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 53, 56, 81 and 83 are rewritten into independent form. The rewriting of these claims does not narrow their scope. The rewriting of these claims is merely a matter of form to place these claims in condition for allowance.

Claims 38-47, 63-76, 84-98 are allowed.

New Claims

New claims 116-137 are added. No new matter is believed proposed. Claims 116-118 depend from allowable claim 53 and, hence, are also allowable therewith. Claims 119-121 depend from allowable claim 56 and, hence, are also allowable therewith.

New claim 122 recites, in part, inputting lighting instructions from the user; storing lighting data corresponding to said lighting instructions on said storage medium in association with said structure data. These features were recited in claim 56, which was indicated as allowable. Allowance of claim 122 and claims 123-127 depending therefrom is requested.

Claims 128-132 depend from claim 61 and are allowable therewith. Claims 133-136 depend from claim 83 and are allowable therewith.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

DAVID G. DOAK ET AL.

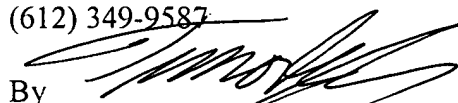
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16 Nov. '04

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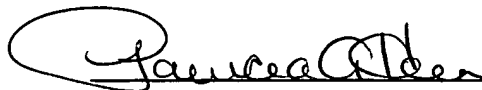


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 16th day of November, 2004.

PATRICIA A. HULTMAN

Name



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